SUMMARY	OBJ#	OBJECTIVE
		Meet all requirements defined in Chapter 5, Competencies for the First Responder at the Operational Level, of
HAZ MAT OPERATIONS	6.1.1	NFPA 472, Standard for Professional Competence of Responders to Hazardous Materials Incidents.
GENERAL REQUIREMENTS	6.1.1.1	
		Describe the responsibilities of the Firefighter 2 in assuming and transferring command within an incident
Assuming & transferring command	6.1.1.101	management system.
		Describe the responsibilities of the Firefighter 2 in performing assigned duties in conformance with applicable
Performing assigned duties	6.1.1.102	NFPA and other safety regulations and authority having jurisdiction procedures.
Role of Firefighter 2		Describe the role of a Firefighter 2 within the organiztion.
Determine the need for command	6.1.1.201	Demonstrate the ability to determine the need for command.
		Demonstrate the ability to organize and coordinate an incident management system until command is
Organize and coordinate an IMS	6.1.1.202	transferred.
Function within IMS	6.1.1.203	Demonstrate the ability to function within an assigned role in the incident management system.
		Complete a basic incident report, given the report forms, guidelines, and information, so that all pertinent
COMPLETE INCIDENT REPORT	6.2.1	information is recorded, the information is accurate, and the report is complete.
Content requirements		Describe the content requirements for basic incident reports.
Purpose & usefulness of accurate reports		Describe the purpose and usefulness of accurate reports.
Consequences of inaccurate reports		Describe the consequences of inaccurate reports.
Obtaining necessary information		Describe how to obtain necessary information for completing incident reports.
Required coding procedures	6.2.105	Describe coding procedures required for completing incident reports.
Determine necessary codes		Demonstrate the ability to determine codes necessary for completing incident reports.
Proof reports		Demonstrate the ability to proof reports to ensure information is accurate.
Equipment necessary to complete reports		Operate fire department computers or other equipment necessary to complete reports
Complete an incident report	6.2.109	Accurately complete an incident report.
		Communicate the need for team assistance, given fire department communications equipment, standard
COMMUNICATE NEED FOR TEAM		operating procedures (SOP), and a team, so that the supervisor is consistently informed of team needs,
ASSISTANCE	6.2.2	departmental SOP are followed, and the assignment is accomplished safely.
Alarm assignments & radio procedures		Identify and describe SOP for alarm assignments and fire department radio communication procedures.
Operate communication equipment	6.2.202	Operate fire department communication equipment to communicate needs for team assistance to a supervisor.
		Extinguish an ignitable liquid fire, operating as a member of a team, given an assignment, an attack line,
		personal protective equipment, a foam proportioning device, a nozzle, foam concentrates, and a water supply, so
		that the correct type of foam concentrate is selected for the given fuel and conditions, a properly proportioned
		foam stream is applied to the surface of the fuel to create and maintain a foam blanket, fire is extinguished,
		reignition is prevented, team protection is maintained with a foam stream, and the hazard is faced until retreat to
FLAMMABLE LIQUIDS FIRE CONTROL	6.3.1	safe haven is reached.
How foam prevents/controls hazards		Identify and describe the methods by which foam prevents or controls a hazard.
How foam is generated	6.3.102	Describe the principles by which foam is generated.
Causes for poor foam generation &		
corrective measures	6.3.103	Identify causes for poor foam generation and describe appropriate corrective measures.

Hydrocarbon vs polar solvents	6 3 104	Describe the differences between hydrocarbon and polar solvent fuels.
Concentrates for hydrocarbon & polar	0.0.104	Describe the unicrenees between hydrocarbon and polar solvent rucis.
solvent fuels	6.3.105	Identify and describe the concentrates that work on hydrocarbon and polar solvent fuels.
Foam characteristics, uses & limitations		Describe the characteristics, uses, and limitations of firefighting foams.
Fog nozzles vs foam nozzles	6.3.107	
Foam stream application techniques	6.3.108	
Foam usage hazards	6.3.109	Identify and describe hazards associated with foam usage.
Methods to reduce or avoid hazards		, and the second
Prepare a foam concentrate supply for use	6.3.111	Describe metrious used to reduce of avoid flazards associated with loam usage. Demonstate the ability to prepare a foam concentrate supply for use.
Assemble foam stream components		, , ,
·	6.3.112	
Master various foam application techniques	6.3.113	
Approach and retreat from spills		Approach and retreat from spills as part of a coordinated team.
Extinguish an ignitable liquid fire	6.3.115	Extinguish an ignitable liquid fire.
		Coordinate an interior attack line for team's accomplishment of an assignment in a structure fire, given attack
		lines, personnel, personal protective equipment, and tools, so that crew integrity is established; attack techniques
		are selected for the given level of the fire (for example, attic, grade level, upper levels, or basement); attack
		techniques are communicated to attack teams; constant team coordination is maintained; fire growth and
		development is continuously elevated; search, rescue, and ventilation requirements are communicated or
INTERIOR STRUCTURE FIRE ATTACK	6.3.2	managed; hazards are reported to the attack teams; and incident command is apprised of changing conditions.
Nozzle & hose selection	6.3.201	Identify the appropriate nozzle and hose for fire attack, given different fire situations.
Adapter & appliance selection	6.3.202	Identify the appropriate adapters and appliances to be used for specific fireground situations.
Dangerous building conditions created by fire	6.3.203	Identify and describe dangerous building conditions created by fire and fire suppression activities.
Indicators of building collapse		List indicators of building collapse.
Indicators of building collapse Effects of fire/suppression activities on		List indicators of building collapse. Describe the effects of fire and fire suppression activities on wood, masonry (brick, block, stone), cast iron, steel,
Effects of fire/suppression activities on	6.3.204	Describe the effects of fire and fire suppression activities on wood, masonry (brick, block, stone), cast iron, steel,
Effects of fire/suppression activities on structural components	6.3.204	Describe the effects of fire and fire suppression activities on wood, masonry (brick, block, stone), cast iron, steel, reinforced, concrete, sheet rock, glass, and plaster on lath.
Effects of fire/suppression activities on structural components Search & Rescue and Ventilation procedures	6.3.204 6.3.205 6.3.206	Describe the effects of fire and fire suppression activities on wood, masonry (brick, block, stone), cast iron, steel, reinforced, concrete, sheet rock, glass, and plaster on lath. Identify and describe search and rescue and ventilation procedures used during structure fire control activities.
Effects of fire/suppression activities on structural components Search & Rescue and Ventilation procedures Indicators of structural instability	6.3.204 6.3.205 6.3.206 6.3.207	Describe the effects of fire and fire suppression activities on wood, masonry (brick, block, stone), cast iron, steel, reinforced, concrete, sheet rock, glass, and plaster on lath. Identify and describe search and rescue and ventilation procedures used during structure fire control activities. List indicators of structural instability.
Effects of fire/suppression activities on structural components Search & Rescue and Ventilation procedures Indicators of structural instability Suppression approaches and practices	6.3.204 6.3.205 6.3.206 6.3.207 6.3.208	Describe the effects of fire and fire suppression activities on wood, masonry (brick, block, stone), cast iron, steel, reinforced, concrete, sheet rock, glass, and plaster on lath. Identify and describe search and rescue and ventilation procedures used during structure fire control activities. List indicators of structural instability. Describe suppression approaches and practices for various structural fires.
Effects of fire/suppression activities on structural components Search & Rescue and Ventilation procedures Indicators of structural instability Suppression approaches and practices Association between tools & forcible entry Assemble a team and choose attack	6.3.204 6.3.205 6.3.206 6.3.207 6.3.208	Describe the effects of fire and fire suppression activities on wood, masonry (brick, block, stone), cast iron, steel, reinforced, concrete, sheet rock, glass, and plaster on lath. Identify and describe search and rescue and ventilation procedures used during structure fire control activities. List indicators of structural instability. Describe suppression approaches and practices for various structural fires. Describe the association between specific tools and special forcible entry needs.
Effects of fire/suppression activities on structural components Search & Rescue and Ventilation procedures Indicators of structural instability Suppression approaches and practices Association between tools & forcible entry	6.3.204 6.3.205 6.3.206 6.3.207 6.3.208 6.3.209	Describe the effects of fire and fire suppression activities on wood, masonry (brick, block, stone), cast iron, steel, reinforced, concrete, sheet rock, glass, and plaster on lath. Identify and describe search and rescue and ventilation procedures used during structure fire control activities. List indicators of structural instability. Describe suppression approaches and practices for various structural fires. Describe the association between specific tools and special forcible entry needs. Assemble a team and choose appropriate attack techniques for various levels of a fire (e.g., attic, grade level,
Effects of fire/suppression activities on structural components Search & Rescue and Ventilation procedures Indicators of structural instability Suppression approaches and practices Association between tools & forcible entry Assemble a team and choose attack techniques Evaluate & forecast fire's growth/	6.3.204 6.3.205 6.3.206 6.3.207 6.3.208 6.3.209	Describe the effects of fire and fire suppression activities on wood, masonry (brick, block, stone), cast iron, steel, reinforced, concrete, sheet rock, glass, and plaster on lath. Identify and describe search and rescue and ventilation procedures used during structure fire control activities. List indicators of structural instability. Describe suppression approaches and practices for various structural fires. Describe the association between specific tools and special forcible entry needs. Assemble a team and choose appropriate attack techniques for various levels of a fire (e.g., attic, grade level, upper levels, or basement).
Effects of fire/suppression activities on structural components Search & Rescue and Ventilation procedures Indicators of structural instability Suppression approaches and practices Association between tools & forcible entry Assemble a team and choose attack techniques Evaluate & forecast fire's growth/ development & determine hazardous	6.3.204 6.3.205 6.3.206 6.3.207 6.3.208 6.3.209 6.3.210	Describe the effects of fire and fire suppression activities on wood, masonry (brick, block, stone), cast iron, steel, reinforced, concrete, sheet rock, glass, and plaster on lath. Identify and describe search and rescue and ventilation procedures used during structure fire control activities. List indicators of structural instability. Describe suppression approaches and practices for various structural fires. Describe the association between specific tools and special forcible entry needs. Assemble a team and choose appropriate attack techniques for various levels of a fire (e.g., attic, grade level, upper levels, or basement). Demonstrate the ability to evaluate and forecast a fire's growth and development and determine developing
Effects of fire/suppression activities on structural components Search & Rescue and Ventilation procedures Indicators of structural instability Suppression approaches and practices Association between tools & forcible entry Assemble a team and choose attack techniques Evaluate & forecast fire's growth/development & determine hazardous conditions	6.3.204 6.3.205 6.3.206 6.3.207 6.3.208 6.3.209 6.3.210	Describe the effects of fire and fire suppression activities on wood, masonry (brick, block, stone), cast iron, steel, reinforced, concrete, sheet rock, glass, and plaster on lath. Identify and describe search and rescue and ventilation procedures used during structure fire control activities. List indicators of structural instability. Describe suppression approaches and practices for various structural fires. Describe the association between specific tools and special forcible entry needs. Assemble a team and choose appropriate attack techniques for various levels of a fire (e.g., attic, grade level, upper levels, or basement). Demonstrate the ability to evaluate and forecast a fire's growth and development and determine developing hazardous building or fire conditions.
Effects of fire/suppression activities on structural components Search & Rescue and Ventilation procedures Indicators of structural instability Suppression approaches and practices Association between tools & forcible entry Assemble a team and choose attack techniques Evaluate & forecast fire's growth/ development & determine hazardous conditions Select tools for forcible entry	6.3.204 6.3.205 6.3.206 6.3.207 6.3.208 6.3.209 6.3.210	Describe the effects of fire and fire suppression activities on wood, masonry (brick, block, stone), cast iron, steel, reinforced, concrete, sheet rock, glass, and plaster on lath. Identify and describe search and rescue and ventilation procedures used during structure fire control activities. List indicators of structural instability. Describe suppression approaches and practices for various structural fires. Describe the association between specific tools and special forcible entry needs. Assemble a team and choose appropriate attack techniques for various levels of a fire (e.g., attic, grade level, upper levels, or basement). Demonstrate the ability to evaluate and forecast a fire's growth and development and determine developing hazardous building or fire conditions.
Effects of fire/suppression activities on structural components Search & Rescue and Ventilation procedures Indicators of structural instability Suppression approaches and practices Association between tools & forcible entry Assemble a team and choose attack techniques Evaluate & forecast fire's growth/development & determine hazardous conditions	6.3.204 6.3.205 6.3.206 6.3.207 6.3.208 6.3.209 6.3.210 6.3.211 6.3.212	Describe the effects of fire and fire suppression activities on wood, masonry (brick, block, stone), cast iron, steel, reinforced, concrete, sheet rock, glass, and plaster on lath. Identify and describe search and rescue and ventilation procedures used during structure fire control activities. List indicators of structural instability. Describe suppression approaches and practices for various structural fires. Describe the association between specific tools and special forcible entry needs. Assemble a team and choose appropriate attack techniques for various levels of a fire (e.g., attic, grade level, upper levels, or basement). Demonstrate the ability to evaluate and forecast a fire's growth and development and determine developing hazardous building or fire conditions.

		Control a flammable gas cylinder fire operating as a member of a team, given an assignment, a cylinder outside of a structure, an attack line, personal protective equipment and tools, so that crew integrity is maintained,
		contents are identified, safe havens are identified prior to advancing, open valves are closed, flames are not
FLAMMABLE GAS CYLINDER FIRE		extinguished unless the leaking gas is eliminated, the cylinder is cooled, cylinder integrity is evaluated, hazardous
ATTACK	6.3.3	conditions are recognized and acted upon, and the cylinder is faced during approach and retreat.
Characteristics of pressurized flammable		
gases	6.3.301	Describe the characteristics of pressurized flammable gases.
Elements of a gas cylinder		Identify and describe the elements of a gas cylinder.
Effects of heat and pressure on closed		
cylinders	6.3.303	Describe the effects of heat and pressure on closed cylinders.
BLEVE signs and effects	6.3.304	Identify and describe the signs and effects of a boiling liquid expanding vapor explosion (BLEVE).
Methods for identifying contents	6.3.305	Identify and describe methods for identifying contents of containers.
Identifying safe havens		Describe how to identify safe havens before approaching flammable gas cylinder fires.
Water usage and demands		Describe water stream usage and demands for pressurized cylinder fires.
Actions for premature extinguishment		Describe what to do if the flammable cylinder fire is extinguished prematurely.
Valve types & their operation		Identify and describe valve types and their operation.
Alternative actions for various hazards	6.3.310	Describe alternative actions related to various hazards and when to retreat.
Execute effective advances & retreats	6.3.311	Demonstrate the ability to execute effective advances and retreats.
Apply various techniques for water		
application	6.3.312	Demonstrate various techniques for water application during a flammable gas cylinder fire attack.
Assess cylinder integrity & changing cylinder		
conditions	6.3.313	Assess cylinder integrity and changing conditions during a flammable gas cylinder fire attack.
Operate control valves	6.3.314	Operate control valves during a flammable gas cylinder fire attack.
Choose effective procedures when		
conditions change	6.3.315	Choose effective procedures when conditions change during a flammable gas cylinder fire attack.
		Protect evidence of fire cause and origin, given a flashlight and overhaul tools, so that the evidence is noted and
FIRE CAUSE AND ORIGIN	6.3.4	protected from further disturbance until investigators can arrive on the scene.
Methods to assess origin & cause	6.3.401	Identify and describe methods used to assess fire cause and origin.
Types of evidence	6.3.402	Identify and describe various types of evidence.
Evidence protection	6.3.403	Identify and describe means to protect various types of evidence.
		Describe the role and relationship of Firefighter 2's, criminal investigators, and insurance investigators in fire
Relationship of Firefighter 2 & investigators	6.3.404	investigations.
Effects/problems with removing evidence	6.3.405	Describe the effects and problems associated with removing property or evidence from the scene.
Locate the fire's origin area	6.3.406	Given a fire inside a structure, locate the fire's area of origin.
Recognize possible causes	6.3.407	Demonstrate the ability to recognize possible causes of a fire.
Protect evidence	6.3.408	Demonstrate appropriate techniques used to protect evidence at a fire scene.
		Extricate a victim entrapped in a motor vehicle as part of a team, given stabilization and extrication tools, so that
CRASH VICTIM EXTRICATION	6.4.1	the vehicle is stabilized, the victim disentangled without further injury, and hazards are managed.
Fire department's role at vehicle accidents	6.4.101	Describe the fire department's role at a vehicle accident.
Autobody construction	6.4.102	Identify points of strength and weakness in autobody construction.

Dangers of vehicle components & systems	6.4.103	Identify and describe dangers associated with vehicle components and systems.
Uses & limitations of tools & equipment		Identify and describe the uses and limitations of hand and power extrication equipment.
Safety procedures when using extrication	0.4.104	definity and describe the uses and infinations of fland and power extrication equipment.
equipment	6.4.105	Describe safety procedures that apply when using various types of extrication equipment.
Operate hand and power tools		Operate hand and power tools used for forcible entry and rescue as designed.
Use cribbing and shoring material		Demonstrate appropriate techniques for using cribbing and shoring material.
Moving and removing various vehicle	0111101	Demonstrate appropriate techniques for moving or removing vehicle roofs, doors, windshields, windows, steering
components	6.4.108	wheels or columns, and the dashboard.
		Assist rescue teams, given standard operating procedures, necessary rescue equipment, and an assignment, so
		that procedures are followed, rescue items are recognized and retrieved in the time prescribed by the AHJ, and
ASSISTING RESCUE TEAMS	6.4.1	the assignment is completed.
Firefighter's role at special rescue operations	6.4.101	Describe the firefighter's role at special rescue operations.
Hazards of special rescue operations	6.4.102	Identify and describe the hazards associated with special rescue operations.
Rescue tools	6.4.103	Identify and describe the types and uses of rescue tools.
Rescue practices and goals	6.4.104	Describe rescue practices and goals that apply to special rescue operations.
Identify and retrieve various types of rescue		
tools	6.4.205	Identify and retrieve various types of rescue tools for use during special rescue operations.
Establish public barriers	6.4.206	Demonstrate the ability to establish rescue barriers.
Assist rescue teams as a member of the		
team when assigned	6.4.207	Assist rescue teams as a member of the team when assigned.
		Prepare a pre-incident survey, given forms, necessary tools, and an assignment, so that all required occupancy
PRE-INCIDENT SURVEY	6.5.1	information is recorded, items or concern are noted, and accurate sketches or diagrams are prepared.
Sources of Water Supply		Identify and describe the sources of water supply for fire protection.
Fire suppression & detection systems	6.5.102	Describe the fundamentals of fire suppression and detection systems.
		Identify common symbols used in diagramming construction features, utilities, hazards, and fire protection
Diagraming symbols	6.5.103	systems.
Form completion	6.5.104	Describe departmental requirements for a pre-incident survey and form completion.
Importance of accurate diagrams	6.5.105	Describe the importance of accurate diagrams in documenting pre-incident surveys.
Identify components of fire suppression and		
detection systems	6.5.106	Demonstrate the ability to identify the components of fire suppression and detection systems.
Sketch the site, buildings, and special		
features		Sketch the site, buildings, and special features of a facility during a pre-incident survey.
Detect hazards and special considerations	6.5.108	Document hazards and special considerations in a pre-incident sketch.
Complete all related departmental forms		Complete all related departmental forms that are included in a pre-incident survey.
		Maintain power plants, power tools, and lighting equipment, given tools and manufacturers' instructions, so that
		equipment is clean and maintained according to manufacturer and departmental guidelines, maintenance is
POWER EQUIPMENT MAINTENANCE	6.5.2	recorded, and equipment is placed in a ready state or reported otherwise.
Cleaning methods		Identify and describe methods for cleaning power plants, power tools, and lighting equipment.
Cleaning solvents	6.5.202	Describe the correct use of cleaning solvents.

		Describe manufacturer and departmental guidelines for maintaining equipment and documentation of the
Maintenance and documentation guidelines	6.5.203	maintenance.
Problem-reporting practices	6.5.204	Describe appropriate practices for reporting problems with power plants, power tools and lighting equipment.
		Demonstrate the ability to select correct tools and maintain them according to departmental or manufacturers'
Maintain tools according to guidelines	6.5.205	guidelines.
Complete recording & reporting procedures	6.5.206	Demonstrate completion of maintenance records and reporting procedures according to departmental guidelines.
Operate power plants, power tools and		
lighting equipment	6.5.207	Operate all power plants, power tools and lighting equipment belonging to the authority having jurisdiction.
		Perform an annual service test on fire hose, given a pump, a marking device, pressure gauges, a timer, record
		sheets, and related equipment, so that procedures are followed, the condition of the hose is evaluated, any
HOSE SERVICE TESTING	6.5.3	damaged hose is removed from service and the results are recorded.
Hose test safety procedures	6.5.301	Describe procedures for safely conducting hose service testing.
Hose removal indicators	6.5.302	Describe indicators that dictate any hose be removed from service.
Recording results	6.5.303	Describe procedures for recording hose test results.
Operate hose service testing equipment and		
nozzles	6.5.304	Operate hose service testing equipment and nozzles during an annual hose service test.
Record results	6.5.305	Record the results of an annual hose service test on appropriate forms.
		Test the operability of and flow from a fire hydrant, given a Pitot tube, pressure gauge, and other necessary tools,
		so that the readiness of the hydrant is assured and the flow of water from the hydrant can be calculated and
HYDRANT FLOW TESTING	6.5.4	recorded.
Hydrant obstructions	6.5.401	Describe how water flow is reduced by hydrant obstructions.
Hydrant outlet direction	6.5.402	Describe how the direction of hydrant outlets relates to suitability of use.
		Describe how mechanical damage, rust, corrosion, failure to open the hydrant fully, and susceptability to freezing
Hydrant problems	6.5.403	effect operation of a hydrant.
Pressure definitions	6.5.404	Define static pressure, residual pressure and flow pressure.
Operate a pressurized hydrant	6.5.405	Demonstrate operation of a pressurized hydrant.
Use Pitot tube & gauges	6.5.406	Demonstrate use of a pitot tube and pressure gauges.
Detect damage	6.5.407	Demonstrate the ability to detect damage to a hydrant.
Record results	6.5.408	Record the results of a hydrant flow test.